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FUN WITH FLUTES

BY DAVID DUSHKIN

BOOK DESIGN AND ILLUSTRATIONS
BY ALFRED D. STERGES

THE UNIVERSITY OF CHICAGO PRESS
CHICAGO, ILLINOIS

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FOREWORD

This book is one of the most original contributions that I have ever seen toward developing a love for music among young people. It demonstrates a deep understanding of child psychology. The little flute which the author has designed is described therein so charmingly that every child will want to learn how to play it, and this will be a wonderful starting-point for the child's musical development in many directions. I am convinced that the author of this book, Mr. David Dushkin, has developed an important new approach which will have an excellent influence on the musical future of our country.

WALTER DAMROSCH

INTRODUCTION

This book is the first of a series planned to present a type of instrument which can be taught in a short time to young or inexperienced people, and which, in some cases, can be built by them in their homes or schools.

It is the author's belief that instruments easy to play and yet capable of truly musical tone would go far toward solving the problem of many thousands of young Americans who would otherwise feel that music is not for them, because they lack the time or that quality of talent necessary to play adequately such instruments as the violin, cello, clarinet, etc. In addition to this, the influence of such instruments upon young children in their first months of music study has been found valuable. Obviously, an instrument upon which they can play melodies almost from the first try, which they can build themselves, and which they can enjoy in the company of their playmates, will quickly endear itself. Used in this way, it is apt to serve as an ideal preparation or accompaniment to the study of any of the major instruments.

While the flute alone is discussed in detail here, there is at the end of the book a brief description of two other instruments which are also now being manufactured,[1] and for which the texts are being prepared. Teachers who wish to use these instruments in connection with the flute will find that much of the music has been arranged so that it can be played on all three, either solo or in combination, as well as on the piano. If the pieces in this book are found to be too difficult or too easy, the author will be glad to suggest additional appropriate material upon request through the publishers. He will also in this way be able to answer questions concerning the making of the flute or the manner of playing it.

I wish to acknowledge with thanks the help given to me in the early stages of this book by Miss Louise Mohr of the Winnetka Public Schools, also to the teachers of the Glencoe Public Schools, the Chicago Latin School, and the Francis Parker School, in which I made my first experiments in the uses of this flute. I am very grateful to Miss Elizabeth Wilder, who helped me revise the text.

[1] By the Wurlitzer Grand Piano Co.

THE STORY OF THE FLUTE

CHAPTER ONE

Long, long ago before there were any houses in the world, some men one evening sat around a fire in a great cave. Many of them had curled up on the ground and fallen asleep. Some were talking together. They were cave men, and they were tired because they had been hunting all day in the forest with their stone axes and flint-headed spears. They wore clothes made of skins, and none of them had ever had his hair cut. None of them knew how to read and write, but they could tell stories to each other as they sat around the fire. They also knew how to draw beautifully; on the walls of their caves they painted pictures of the animals they saw in their wanderings through the forests.

One of the hunters was playing with a long slender leg-bone. It was bare of meat, and it had lain near the fire until it was dry inside and out. The man poked at the hollow center of the bone with a small stick until it was quite clean. It was so smooth and white that he thought he might scratch a picture of a fat deer on it. Then something exciting happened. He noticed that when he blew on it, it made a surprising whistling sound, like the wind in the branches, or like a voice.

He showed it to his friends, and they were very pleased, too. They hunted for nice long, hollow, straight bones and tried to make flutes for themselves. Perhaps we should not care for the sound of these first little flutes of bone. But they were the only ones the cave men had ever heard, and they thought them very fine indeed. Often when they were full of sadness or of joy they played on them. They liked the sound of their flutes so much that they imagined even the beasts of the forest would come out to hear them. They put skins over their heads so that the animals would not recognize them at first and be frightened. Then they piped on the flutes, and the animals came out of their hiding places. That is what the cave man who made the drawing on the next page shows us. Can you tell which is the man and which is the goat, and which is the buffalo? Even to this day, in parts of Africa, people hunt in just this way.

As time passed, people learned to make flutes more cleverly, just as they learned to make woven clothes, earthen pots, and houses of mud-bricks and wood. They learned that by piercing several holes in the side of the flute they could make different sounds and even play a tune. They had very few tools, but they experimented to see what material would make the best flute. Sometimes they molded a hollow tube of damp clay, and then hardened it over a fire. Reeds and bamboo stalks were very useful, because they came already hollowed out.

If you should make a flute yourself, no matter how sweet it sounded, you would probably want to make another and still better one. It has been that way with everybody who has tried to make flutes. So, little by little, people learned a great deal about them. If one man discovered a very good way of fixing the end of his flute, he told it to his sons, and they told it to their sons, so that flutes were made better and better.

In Egypt men became very skilful in flute-making. They knew how to make handsome instruments of rare woods and costly materials, like gold and ivory. Even so, it was very hard work to make a flute in those days. Remember that they had few tools and no machinery to help them. The tools they used were not half as good as those you can buy in any hardware store now. It sometimes took them days to make and decorate a simple flute which you can yourself finish in a few hours. That is why it happened that some men began to spend all their time in making flutes. There were other people who loved to play flutes, although they did not know how to make them. So they bought them of the flute-makers. It was much more convenient to do that, and they could be sure of getting a fine flute. But in another way it was too bad, because making your flute is fun, too, and you can make it just the way you like.

The Egyptians had a great deal of beautiful music. They had not learned how to write it down, however, so we can only guess how it sounded. Even today in Egypt you can see flute-players sitting on the street-corners, ready to play for anyone who wants to listen.

Look at the two pictures the Egyptians made of boys learning to play the flute. One of them is evidently doing very well. But the other must have neglected to practice his music-lesson, for he seems to be playing so badly that his teacher has put his hand over his ear in protest. You can see what fine, straight, long flutes they had. You can see also that these two flutes are different. One is blown at the end and held out straight in front, while the other is blown at the side.

The Greeks, too, were very fond of the music of flutes. There was hardly an occupation or a profession that did not call upon the flute-player and his art from time to time to help in its ceremonies. The flute-players used to stay in the market-place, so that when you were ordering the chicken and the cheese and the nuts for your dinner-party you could order the flute-players too. They always had the music of flutes at weddings, and at dances, and at the theater, and in processions, and in the temples.

THE HUNTER PLAYS HIS FLUTE

TWO PICTURES OF A FLUTE LESSON

● The Greeks used to tell a story which shows how deeply they loved the music of the flute. There was a satyr named Marsyas, who lived in Arcadia. A satyr is a half-human creature of the woods who has the legs and tail and the little horns of a goat. One day as Marsyas was wandering through the forest, he noticed a small wooden object on the ground. He picked it up and found it to be a flute which had belonged to the goddess Athena. It was a double-flute which she had thrown away because she thought it was not good enough for her. But to Marsyas it seemed indeed a wonderful flute. He was so fond of it, and he played it so much, that soon he became famous throughout all Greece. People said that there was no one in the world who could make such beautiful music. They even began to whisper that Marsyas could play as well as Apollo himself; Apollo was the god of music. And Marsyas, very foolishly, listened to them, until he became very proud.

● When the god Apollo heard this he was very angry. Of course it was wrong of Marsyas to be so proud, and to boast that he could play better than Apollo. No mortal could do that. So Apollo took his lyre and went down to earth from Mount Parnassus. He challenged Marsyas to a contest, and Marsyas gladly accepted the challenge.

● First Apollo played on his lyre (a kind of seven-stringed harp). It was very beautiful. Then Marsyas played on his flute. Everyone was spellbound. It seemed to them that they had never heard such lovely music. Then Apollo played again, and then Marsyas. No one was able to say which had played the better; even the judges could not decide. That shows how well Marsyas played: well enough to rival the god of music himself!

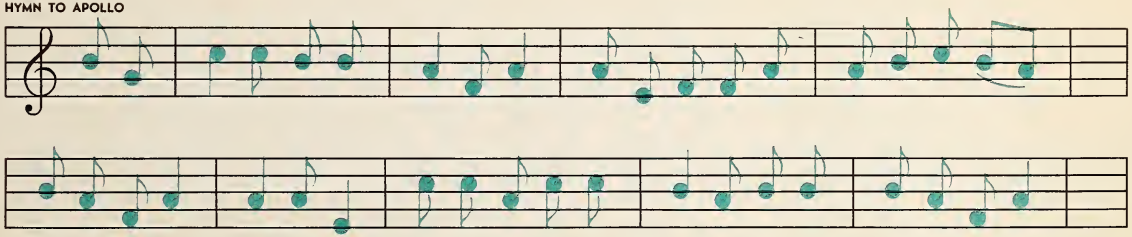
● Then Apollo, playing on his lyre, began to sing to the music of the plucked strings. It was so beautiful that at last everyone realized how great Apollo was. They all agreed that he had won the contest and proved that no mortal was his equal. But Marsyas was angry. "You have cheated," he said to the god Apollo, "we were each to play on our instrument, and you have sung as well." Apollo laughed. "I did only what you did," he said, "you used both your hands and your mouth, and so did I."

A GREEK PROCESSION

In this picture you can see flute-players marching in the procession at Athens up to the temple of the Parthenon at the festival of the goddess Athena. They stand so straight and hold their flutes with such a dignity that you can almost hear their music.

Unlike the Egyptians, the Greeks had a way of writing down their music so that it would not be forgotten. But they lived so long ago that almost all of it has been lost. Much of it was burned in a library at Alexandria. Now we have left only two or three melodies that were cut in stone; the hymn to Apollo is one of them. The Greeks did a great deal to perfect the flute, too, and that has not been forgotten. They wanted to improve the instrument, although they did not always know just how to do it. So they guessed—sometimes right, sometimes wrong. They changed the shape; they changed the position of the holes; they tried blowing from different parts of the flute. There is one story of a Greek who was playing in a musical contest on the usual kind of straight flute. Something went wrong with the mouthpiece, and his hearers thought he would no longer be able to get any sound from that flute. But the player turned the flute sideways and, using the top finger-hole to blow into, went right on with his music. The audience were so pleased with his cleverness that they awarded him the prize! You may be sure that it was not only the flute-player who was clever: the person who made the flute must have been even more clever to construct it so that it would work both ways.

HYMN TO APOLLO



● Here is part of a melody the people of Greece used to sing in praise of Apollo. Later on, when you have finished this book and have learned how to make your own flute and play on it turn back and try this bit of melody on your flute. You may like it.

● The Romans thought that music was so necessary that they made it a part of their laws. Some important ceremonies of the government could not take place without the music of flutes. Just suppose that the mayor of your city could not take office unless he marched to the town hall in a procession headed by flute-players! We would think that very funny; but the Romans did not think so at all. They were afraid that their gods would not be kind to them unless they heard the music of the flute they loved so well.

● Once the flute-players of Rome were not pleased with the way they were being treated. So they all left Rome together and went to a nearby town. There was not a flute-player left in Rome. The Roman law-makers were in great distress, because they could not govern without them. They begged the flute-players to come back; they offered to pay them more; they threatened that if they did not come at once they could never return to Rome. But the flute-players would not come back. Instead they lived merrily, and played their flutes and danced all day long. One night a great feast was given in their honor. The townspeople, who were helping the Romans, drugged their wine so that they all fell into a deep sleep. Then a band of Romans carried them quickly back to Rome while they slept. When the flute-players awoke so many presents and honors were showered upon them and everyone was so glad to see them that their anger left them. They stayed and played again for Rome.

● The Persians have a legend that tells how, if it had not been for the flute, you and I would not be alive today. It is their story of how Adam, the first man, was created. First his body was made. Then the Lord told the spirit to enter the body, to give Adam life and become part of him. But the spirit, which was wise and thoughtful, did not wish to become part of such a dull, lifeless thing as Adam's body. Then the Lord commanded the angel Gabriel to play upon the flute. No sooner had Gabriel

CHINESE SERENADE

started to play than the spirit began to flutter and move toward the motionless body of Adam. After a while it entered Adam's feet. Instantly the feet began to move, and Adam sprang up and began to dance to the music of Gabriel's flute.

● The Japanese and the Chinese usually make their flutes of bamboo, which is a very fine wood because it is strong and smooth and, as we have said, comes already hollow. They call the flute "The Bird of Heaven," and almost worship it. The Hindus know how to charm snakes with their flutes.

● In olden times, no matter how many flutes were playing at once, they all played the same tune. But finally the musicians learned how to write music for several instruments together, so that each played a different melody. In that way they made the pleasant harmonies that you and I like to hear. Sometimes three or four flutes would play together. Sometimes a violin would play with them, or a voice would sing. The English even found a way in which one man could play a flute and a small drum at the same time. This music was used for country dances.

● In the days of Good Queen Bess the English people loved to play and sing together. Every gentleman learned music just as he did reading and writing. Rich men kept their own musicians so that they could have music whenever they liked. For the poor people there were traveling players who would pipe for them to dance on the village green. If you were fond of someone you would send two or three musicians to play under her window in the evening. Even in the barber shops there were flutes and other instruments with which the customers might pass the time while they were waiting for their turn. Queen Bess herself took lessons regularly on the flute and had six flute-players, as well as many other musicians living in her palace. She pretended to be very shy about her playing, and never allowed anyone to listen. But if someone overheard her by chance she was very pleased indeed at their praise!

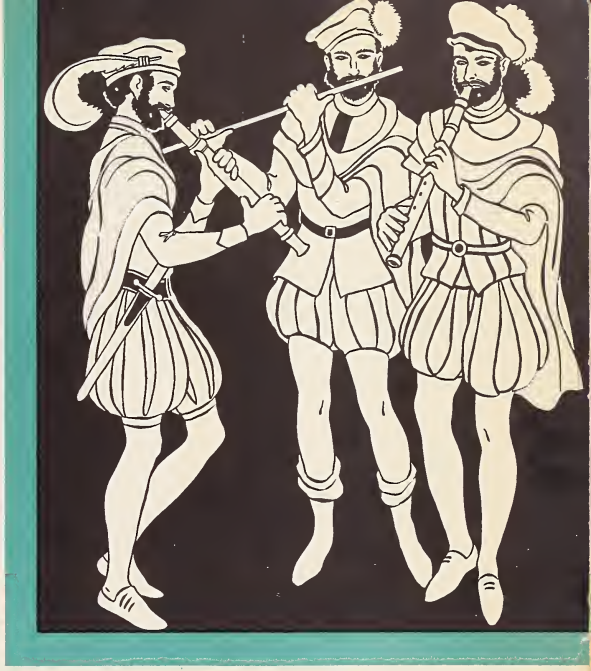
● There have been, as you see, many different kinds of flute in all these years since the cave man first whistled on a hollow bone. They are called by many different names, and they are used in almost every country. There are very little flutes to play very high notes, and very big flutes to play very low notes. Some are played from the top, some are played from the side, others from the middle. There are single flutes and double flutes, flutes of wood and of bone, of metal and of clay. But no matter how different they are in shape and in name, all good flutes

are certain to have one thing in common—a clear, lovely tone.

● In the orchestras of our own day the side-flute is used. It is, however, a very different flute from the one played by the Greek musician whose story I told you. A hundred years ago there lived a marvelously clever inventor named Theobald Boehm. He designed many changes in the flute; and these changes were not guesswork. He found exactly what size tube was needed, and all along this tube he put little metal levers or keys. When the flutist presses these keys he can get any note he wants without having to move his fingers around much. The keys are so arranged that every note can be perfectly in tune.

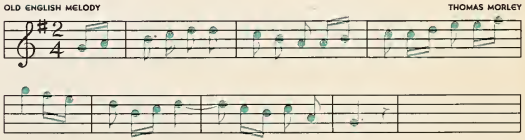
● If some old-fashioned flute-maker could step into one of our modern factories and see how the Boehm flute is constructed what a surprise he would have! He would see flutes being made, not by the hands of men, but by machinery. He would see that most of the men working there know very little about flutes and never have a chance to play on them. They just keep the machinery going. The machines turn out the parts for the flute rapidly and perfectly. Little by little the parts are then put together by the machine or by hand. When the flutes are finished they are all exactly alike and work so smoothly that they seem like little machines themselves. Their tone is clear and pure; they have a very big range, and in the hands of a skilful performer can play difficult, rapid music. But they are mighty hard to play, and, as you see, you could not possibly make them with your own hands.

● Fortunately you do not need any machinery to make the sweet-toned flute described in the next chapter. A wooden or metal tube, some cork, a small piece of hard wood, and a few simple tools are all that you need.



THE ELIZABETHAN MUSICIANS

OLD ENGLISH MELODY — THOMAS MORLEY



HOW TO MAKE A FLUTE[1]

CHAPTER TWO

1. Take a $2\frac{1}{2}$-inch length of telescope brass tubing $\frac{13}{16}$ inch outside diameter. Clamp it upright in a vise and saw into one side of the top for a depth of $\frac{1}{4}$ inch. Now lay it flat in the vise, and starting where your first cut ended, saw through the tube until only $\frac{1}{4}$ inch of it is left uncut. Your tube will look like Figure 1.

Now heat the cut end of the tube. After allowing it to cool again, bend the flaps back until they point directly away from the tube, and cut off all but $\frac{1}{4}$ inch of them. Your tube will then look like Figure 2. In the center of each flap drill a $\frac{1}{16}$-inch hole. Cut a flat-head nail just long enough to pass through both flaps, and the mounting for your octave key is made. The octave key itself is just a 3-inch strip of hard wood about $\frac{1}{4}$ inch thick and $\frac{3}{8}$ inch wide and tapered off a bit toward the bottom, like Figure 3.

Notice that it has a hole through the side near the top. Your nail will pass through this when you place the key between the flaps. Also notice the felt pad about $\frac{1}{4}$ inch square glued on near the upper end of the wood strip. When your flute is finished, the octave hole will be covered by this felt pad.

2. Keep these parts but do not assemble them yet. Instead, take another piece of telescope brass tubing $11\frac{1}{2}$ inches long and $\frac{3}{4}$ inch outside diameter. Slip the short tube over this, first cleaning the surfaces with steel wool and applying some cement or solder to make the contact permanent. Be sure the key-mounting slips on first and that the outer tube is pushed down its full length, so that the tops of both tubes are flush.

If you use cement, give it time to set hard. Then take your metal saw and cut down from the top of this doubled section for a distance of 1 inch, starting about $\frac{1}{4}$ inch in from the edge of the tube, and slanting the saw outward so that you will be just a bit nearer the edge at the end of the cut. Now lay the tube down flat,

[1] The best possible guide in making anything new is an accurate model that one can use for comparing and testing. The flute you are about to make is now being manufactured by the Wurlitzer Grand Piano Co. They are attempting to make available to young people and teachers models of each part separately as well as the complete instrument.

WORKING DRAWINGS

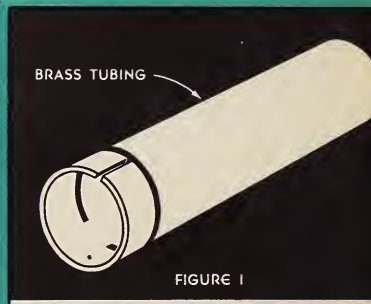


FIGURE 1

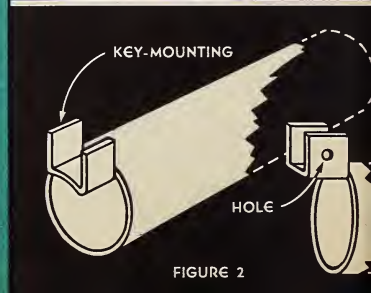


FIGURE 2

FIGURE 3

FIGURE 4

FIGURE 5

and saw straight into it just where you finished the last cut so that the piece will fall off. The tube will then look like Figure 4. File all the newly cut edges smooth and straight. The bottom edge of the cut will now have to be filed flat and thin, until it looks like Figure 5, instead of like Figure 4. To get the right kind of an edge, you will have to file not only from the outside but from the inside of the tube as well. This edge we shall call the "lip" of the flute.

3. Take two straight corks 1 inch long and $\frac{3}{4}$ inch in diameter. Push about $\frac{1}{2}$ inch of one cork into the bottom of the tube. Push the other into the top of the tube until it is a little over $\frac{1}{8}$ inch from the lip. Flatten this cork with your file until it is level with the cut edges of the tube (Fig. 6).

4. With water-proof cement attach a piece of hard wood $\frac{7}{8}$ inch wide, $1\frac{1}{2}$ inches long, and about $\frac{1}{8}$ inch thick to this flattened cork (Fig. 7). Make sure the wood strip fits snugly against the sides of the tube and the lip. This wood strip is the bottom of the mouth-piece block. Now cut another hard-wood strip just like it but a little thicker. This is the top of the mouth-piece block. Cover one side of each of these hard-wood strips with a piece of sheet cork $\frac{1}{8}$ inch thick. Cement it on and allow it to set thoroughly (Fig. 8).

The bottom of the mouth-piece block now has to be adjusted to the lip. If you have followed instructions, you will find it too high and will have to lower it. Do this with a fine file, and be careful to keep the surface of the cork which you are filing smooth and flat. You can tell that you have it low enough by holding the tube out in front of you and looking along the cork surface of the mouth-piece block past the lip. When the edge of the lip just appears up above the cork surface you have it adjusted satisfactorily (Fig. 9). Now take the top of the mouth-piece block and cement onto the cork surface two narrow strips of

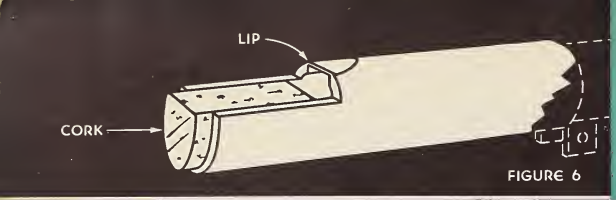


FIGURE 6

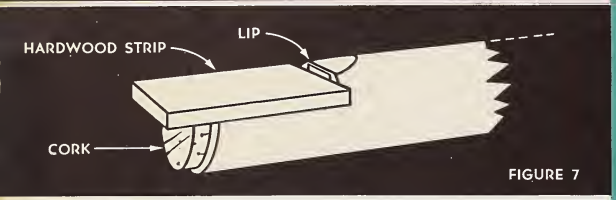


FIGURE 7

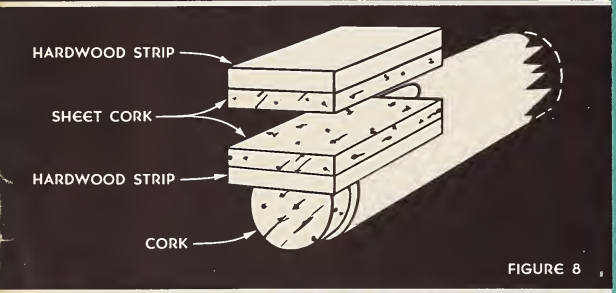


FIGURE 8

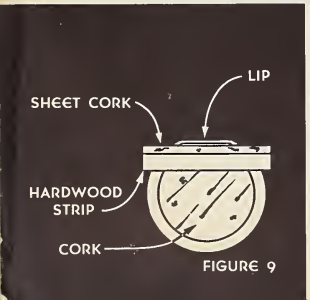


FIGURE 9

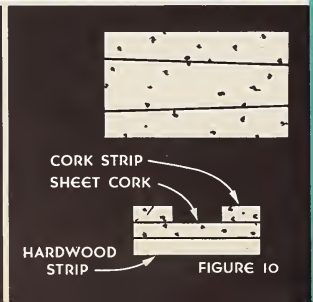


FIGURE 10

the same $\frac{1}{8}$-inch sheet cork. Notice that the cork walls are wider at the bottom than at the top. This makes the slot, or "windway," wider at the top than at the bottom (Fig. 10).

5. In Figure 11 notice that the top of the slot is not only wider but higher. This is important because otherwise, when you blow into the flute, the air will escape too easily from the bottom of the slot. So take your fine file and gently file away at the cork walls until they slant downward a bit toward the flattened edge of the brass.

Now there is one more thing to do before you can try to get a sound.

6. Take the hard-wood block (which should still be in two pieces and not cemented), put it in a vise, and saw out a groove like that shown in Figure 12.

7. This groove should come at the small end of the slot and should not be more than $\frac{3}{16}$ inch deep. Slip your block into the top of the tube down as far as it will go, holding it so the top piece of wood will not slip, and blow softly into it. You should get a clear but low tone. If the sound is very high and loud you are blowing too hard.

The next thing to do is to drill eight holes along the tube directly below the flat edge or lip of your flute as in Figure 13.

8. A $\frac{3}{16}$-inch drill will do this. Be sure you measure carefully the spaces between the holes. The length from the lowest hole to the bottom end of the tube does not matter, because it is all "dead-end," that is, the cork is pushed into the tube until it is just below the bottom hole.

Now place the top onto your mouth-piece block and blow into the flute again. If the tone is clear and smooth you are ready

to tune your flute. If the tone is choked, your opening is probably too small or the bottom of the block is too high or too low. If the tone is windy or fuzzy, the slot in the mouth-piece may be too high, in which case try filing the cork walls a trifle more.

9. The work of getting the most beautiful tone for your flute is called "voicing" it. I advise you not to stop with one mouth-piece, even if you should think it satisfactory, but when the flute is finished make another mouth-piece and see what that brings you. I have had students who made two or three mouth-pieces and got a beautiful but very different quality from each of them. As soon as you are satisfied with the voicing, cement the parts of the mouth-piece block together. Be careful not to let any cement ooze into the slot. If when finished the mouth-piece block is too thick for comfort in playing, it may be filed or sanded as thin as desired.

10. *The tuning.*—This is best done with a small reamer, and the easiest way is to cover all the holes but the bottom one with adhesive tape. Then blow gently into the flute and play "C" on whatever instrument you are tuning with. Probably your "C" will sound a bit low, because the holes you drilled were quite small. To make it sound higher you will have to enlarge the hole a

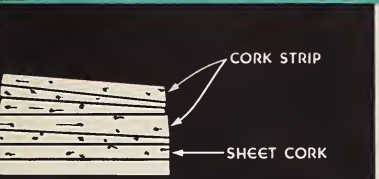
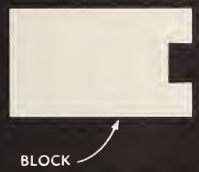


FIGURE 11



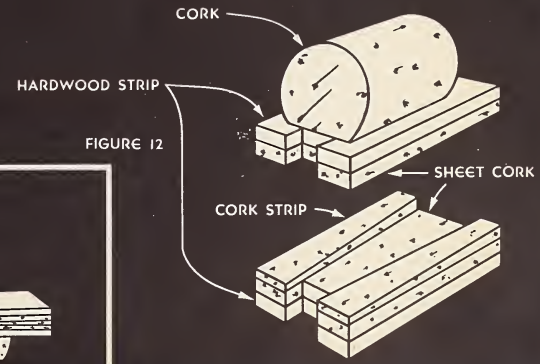


FIGURE 12

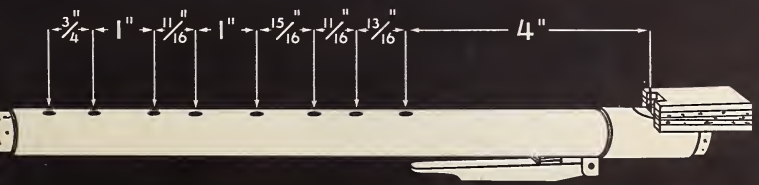


FIGURE 13

little. This you can do by twisting the reamer around in the hole. Enlarge the hole only a very little and then try "C" once more. When "C" is in tune, pull the adhesive tape away from the next hole and tune that to "D." The next is tuned to "E." For the "F" and those higher up, you had better look at the chart of fingerings on page 14; the black circles show the holes that have to be covered.

After you have arrived at the "C" one octave above the low "C," you are almost finished. There is one thing more to do, and that is to drill the octave hole (or thumb hole). This must be at the back of the flute, opposite the holes already drilled, and should be half-way between the flat edge, or lip, of the flute and the top hole. Drill it with a $\frac{1}{16}$-inch drill and then if your high "D" (see chart) is too low, drill it *just a trifle* larger, until the "D" is in tune.

If everything up to this point has worked out correctly, the rest of the second octave will sound clear and in tune. Now you may take the octave key, which was described at the beginning of this chapter, place it between the brass flaps and slip the nail through it. The pad should cover the "D" hole when you press the octave key to the tube. If it does not, tear it off and glue it on again at the proper place. Be sure the octave key swings freely but not much more than $\frac{1}{2}$ inch away from the tube. If it swings too far, glue a piece of cardboard under the top. When this is done, all you have to do is to put a drop of cement or solder on the clipped side of the nail so it will not fall out. Now polish your instrument with steel wool (and lacquer it if you wish to keep the polish).

Your flute is finished, and you are ready to play the music in the next chapter.

HOW TO PLAY YOUR FLUTE

CHAPTER THREE

● When I advised you in the last chapter to make yourself an extra mouth-piece, it was for two reasons. One was that the second might produce a lovelier tone. The other was that unless you are very lucky or very careful when you are first learning to play, you will be likely to get the mouth-piece too damp. Hence it is well to have an extra one.

● Here are a few simple rules (if you follow them well, it will take you no time at all to get a good tone):

● 1. Hold the flute well away from your body, like the lad in this picture, so you can keep your head high and your chin up.

● 2. Don't get your hands "mixed." Be sure the left hand covers the three top holes, the right hand the next four holes. The bottom hole is not covered.

● 3. Even when you are playing a high note and all the bottom holes are open, keep your right-hand fingers near them, ready to cover them instantly. In other words, the less your hands slide about, the better flute player you will be.

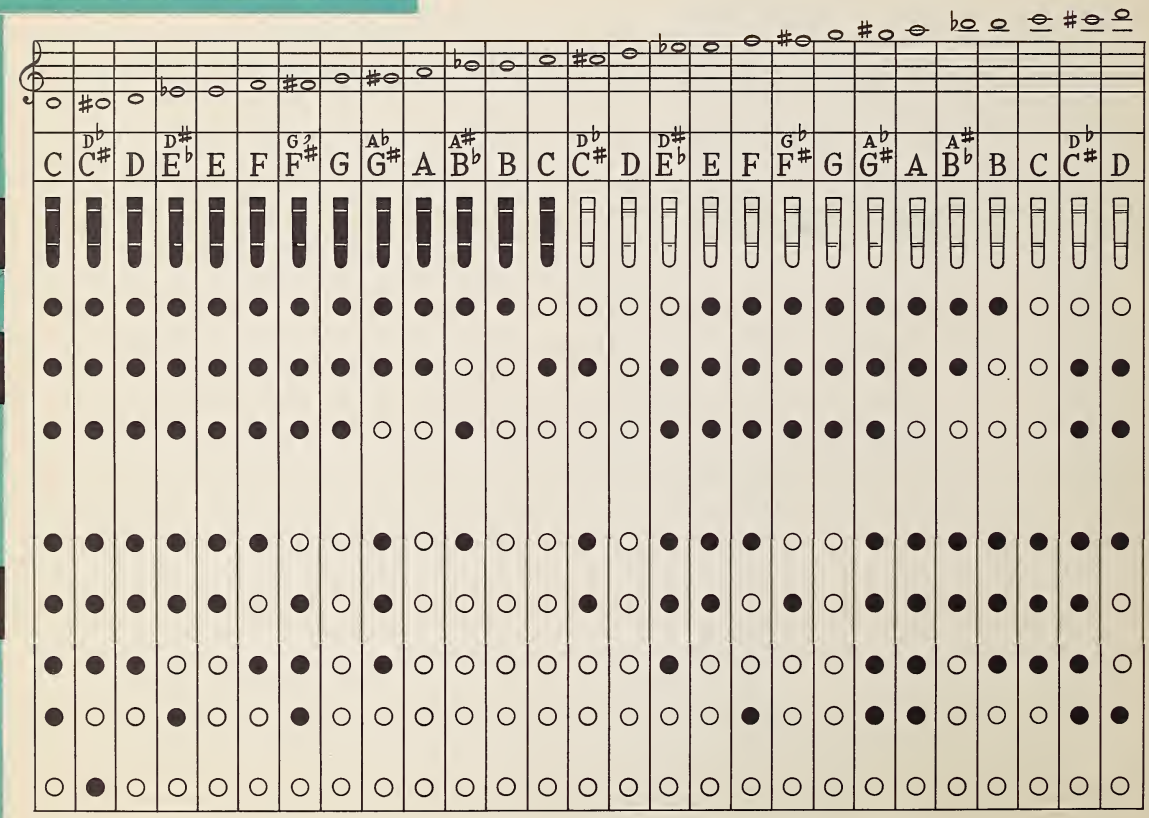
● 4. Observe that the very low notes on the flute take hardly any breath. If they sound unsteady or "jumpy" it is because you are blowing too hard. As you go higher in the range, you have to use a little more pressure, especially toward the top of the second octave. Even there, however, it is unnecessary to blow very hard.

● When you play the flute, purse your lips and blow gently as though you were merely cooling a spoonful of hot water. Put the flute in your mouth with only the top finger-hole and the thumb-hole covered, and try blowing into it that way. Now try starting each sound with a gentle movement of your tongue as well as the blowing. It is as though you softly whispered "tuh-tuh" each time you started a note. Do this over and over on different notes until it comes easily. These things will give you a good clear tone, but for the most beautiful flute tone you will have to add something more—perhaps not at first—but later on.

● What you will have to add is a tremolo, or slight wave in the blowing. This will make your whispered "tuh" become "tuh-uh-uh-," with the "uh" part breathed rapidly over and over as long as the note has to be held. This may seem a bit awkward to you at first, especially if you get too much tremolo; but it will come easily as you become accustomed to your flute.

● Practically every instrument except the piano depends to some extent on the ear of the player for pitch or "intonation." In other words, it is quite easy to play a perfectly tuned flute out of tune if you don't listen to yourself. If, however, you are careful the first few times it will become a habit with you to blow with just the right pressure to make your flute sound in tune.

FINGERING CHART



Theme

BEETHOVEN

Old French Song

p

mf

⊛ First time Flute only, second time as written.

A German Song

Waltz tempo

p

Slumber Song

SCHUBERT

Gently

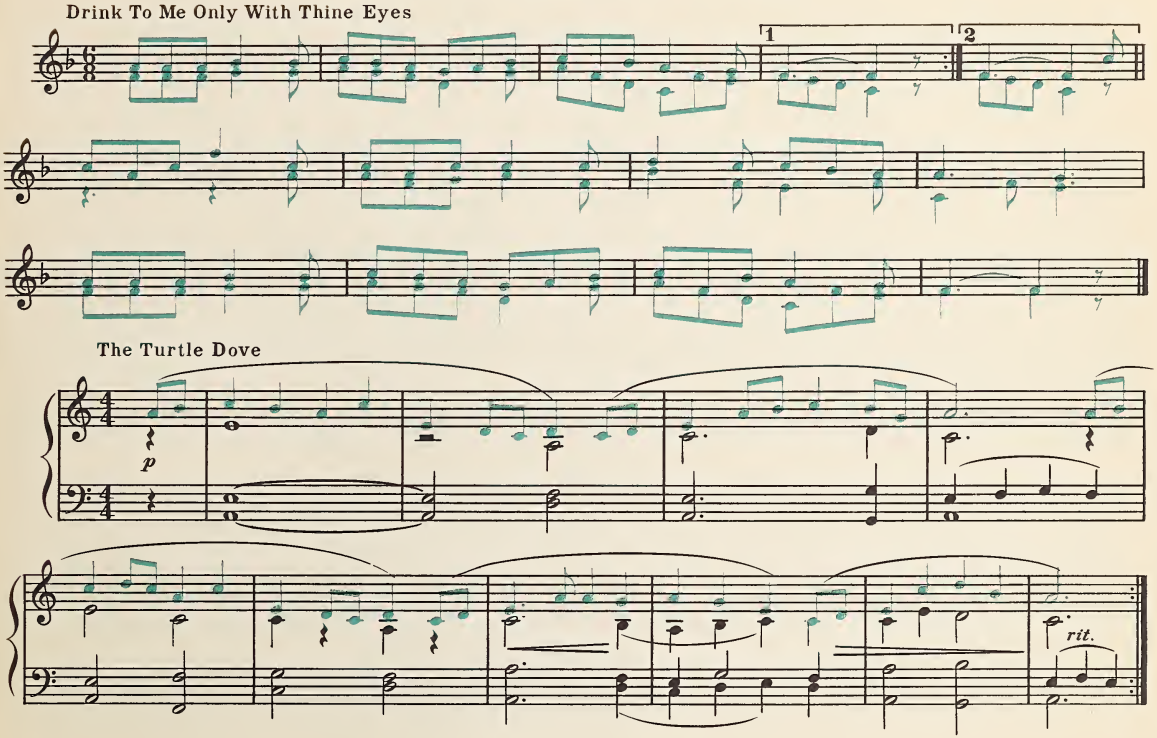
p

mf

p

rit.

Two Old English Love Songs



Theme from the Fifth Symphony

TSCHAIKOWSKY

Andante cantabile

pp

Come All You Worthy Christian Men

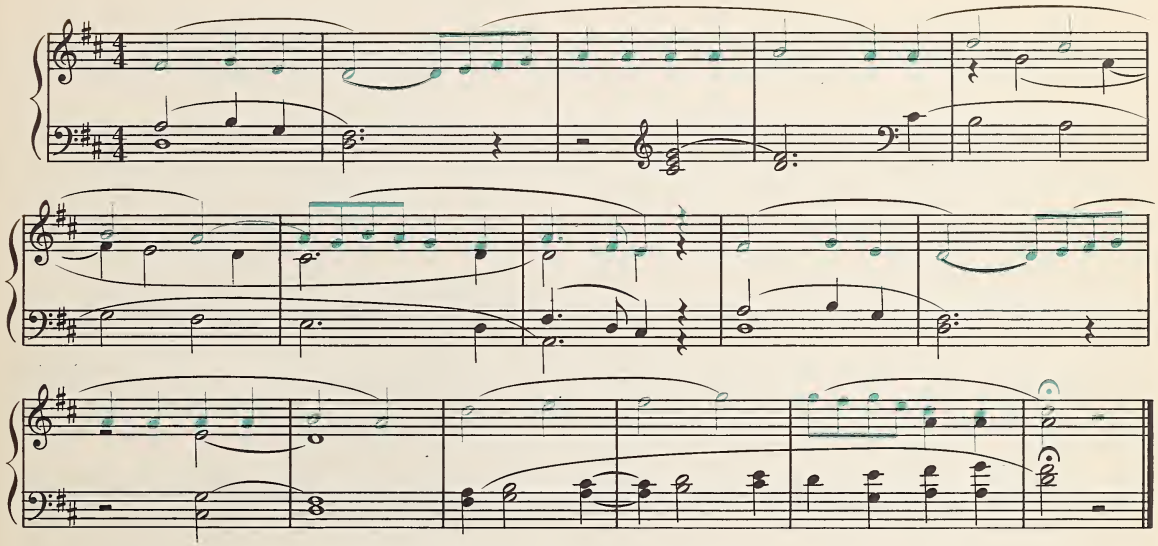
Old English

March tempo

rit.

Air

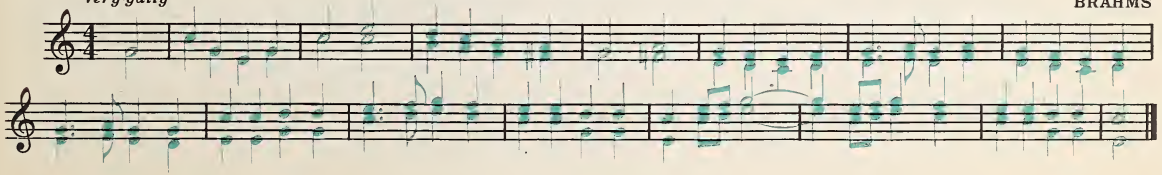
HAYDN



For Two Flutes
Very gaily

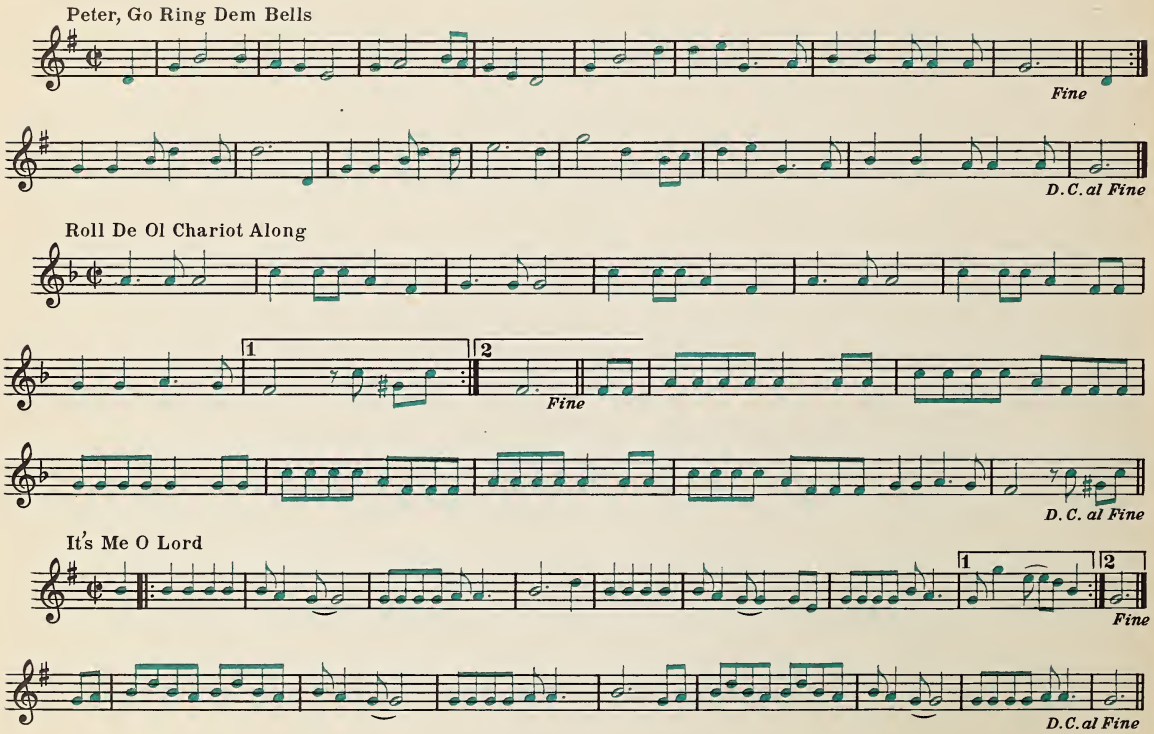
In Poland There's An Inn

BRAHMS



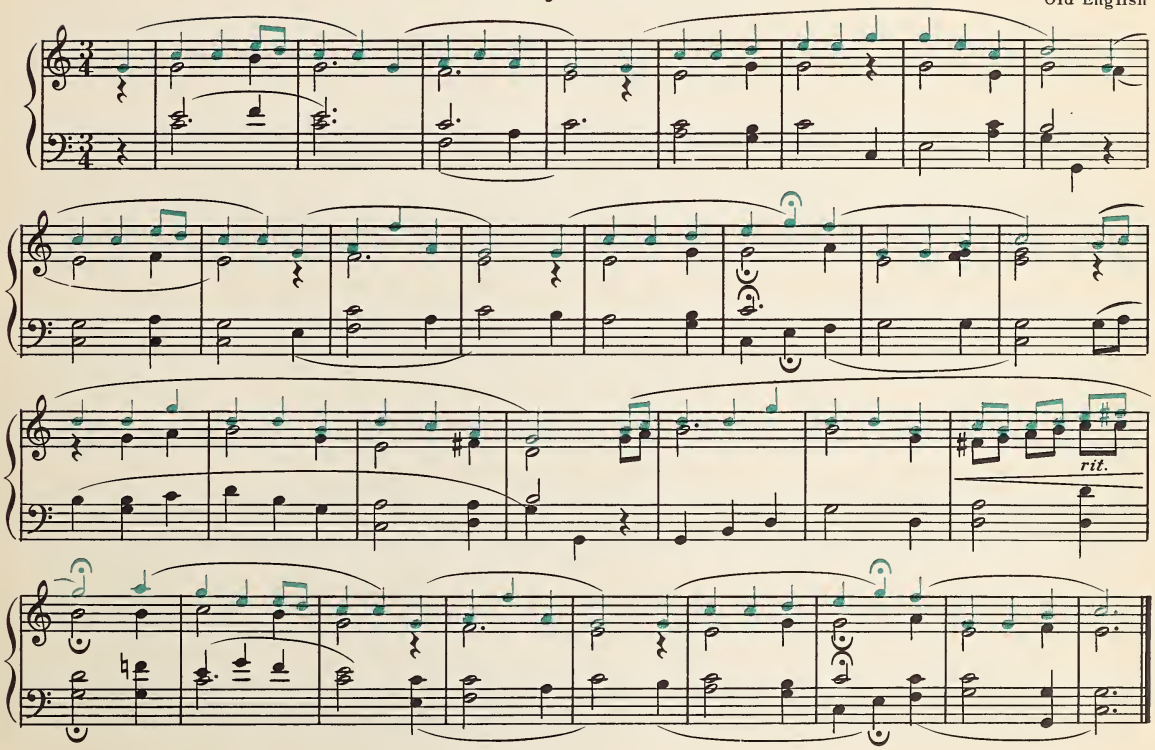
For Flute only.

Three American Negro Songs

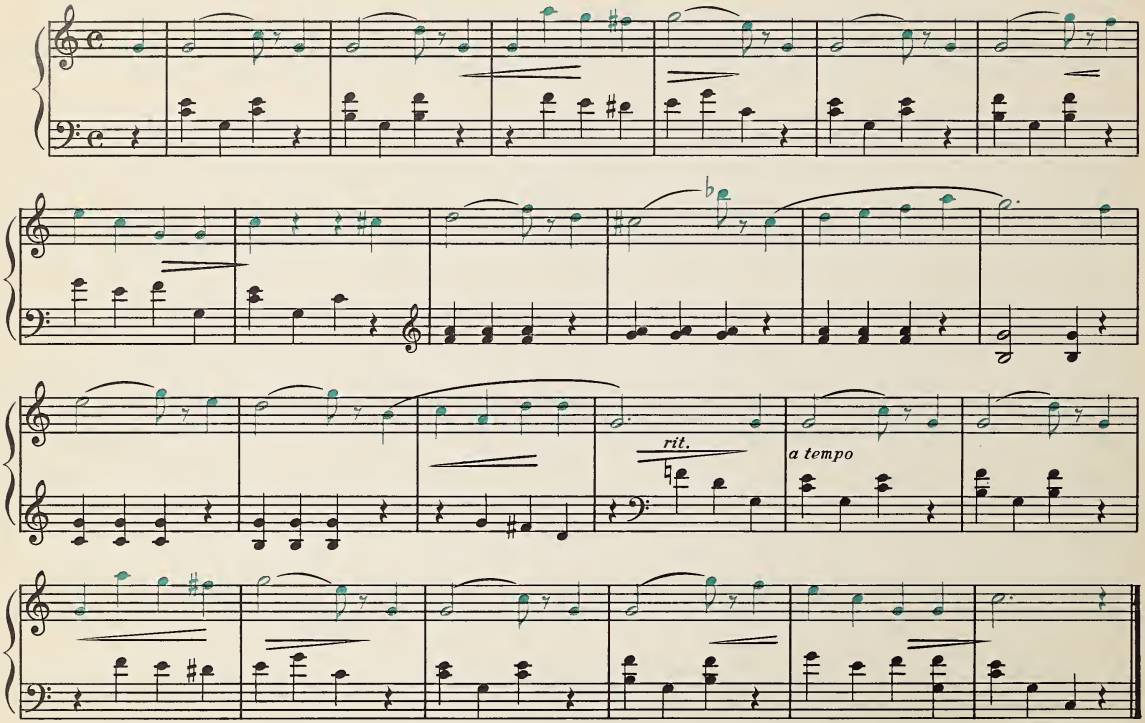


Flow Gently, Sweet Afton

Old English

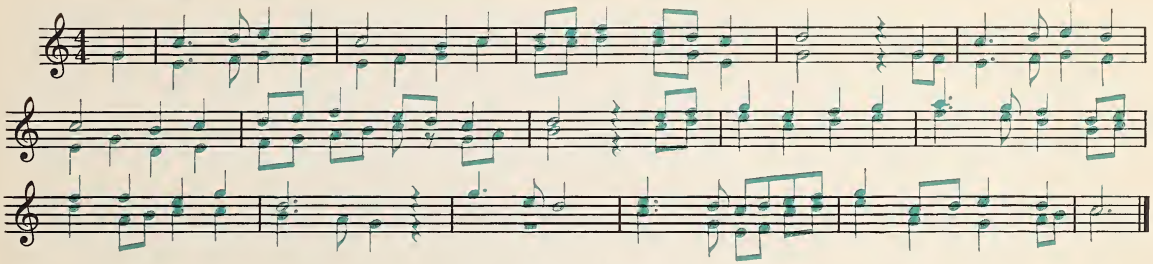


From Schubert's "Rosamunde"

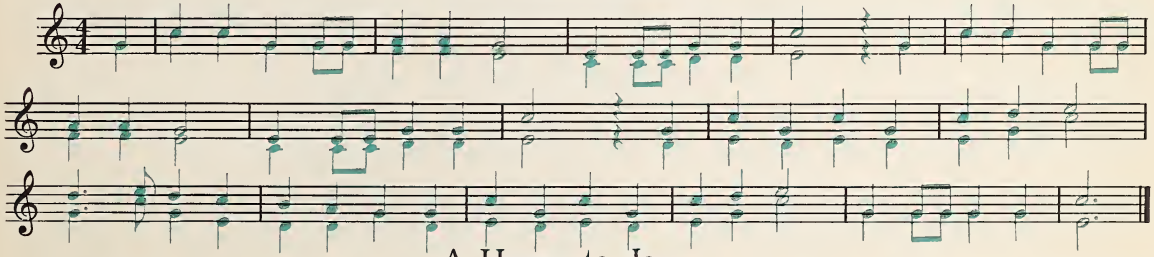


For two Flutes

A German Lullaby



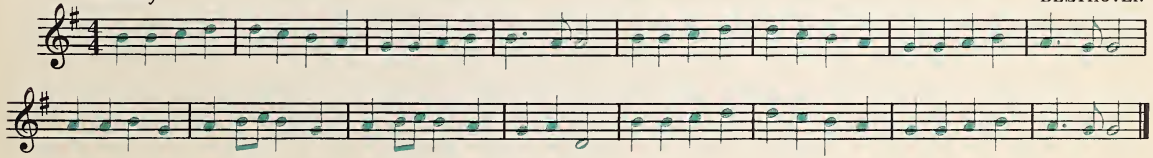
An Old Melody



A Hymn to Joy

Flute only

BEETHOVEN



Scotch Air

Slow

p

rit.

rit.

Little Romance

Moderately, not too fast.

SCHUMANN

p

sf p

sf p

f

sf

sf

f

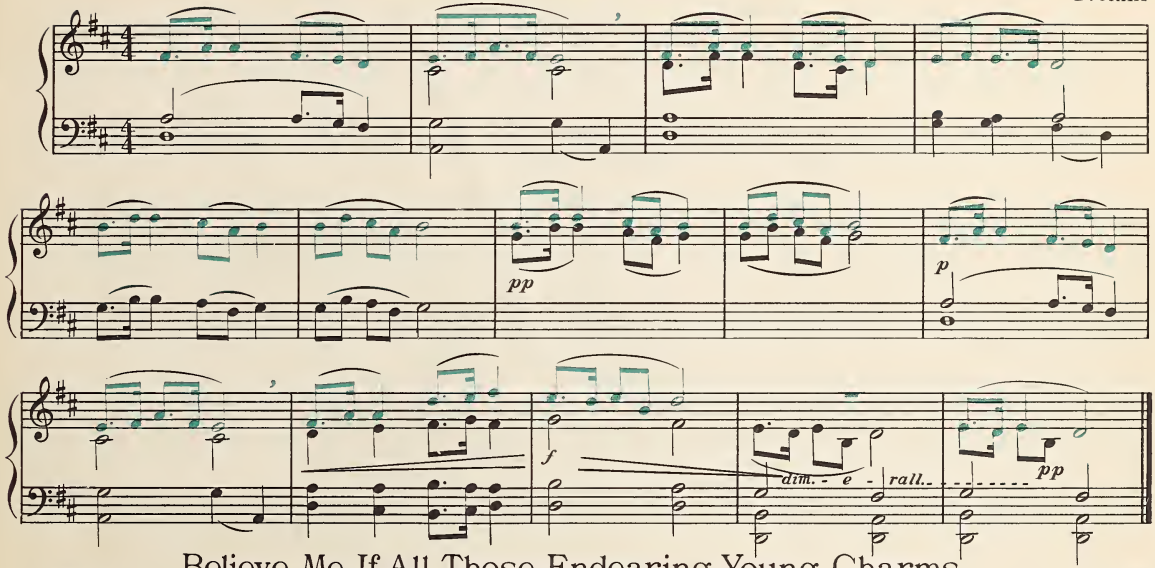
sf

p

pp

Largo from the "New World" Symphony

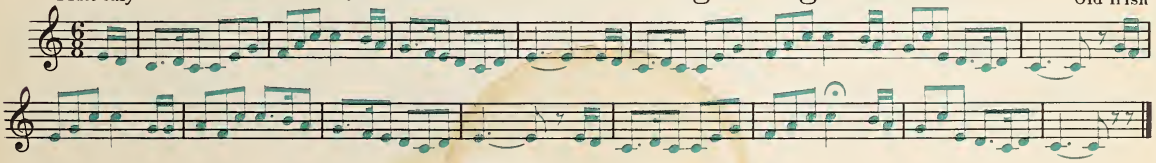
DVORAK



Believe Me, If All Those Endearing Young Charms

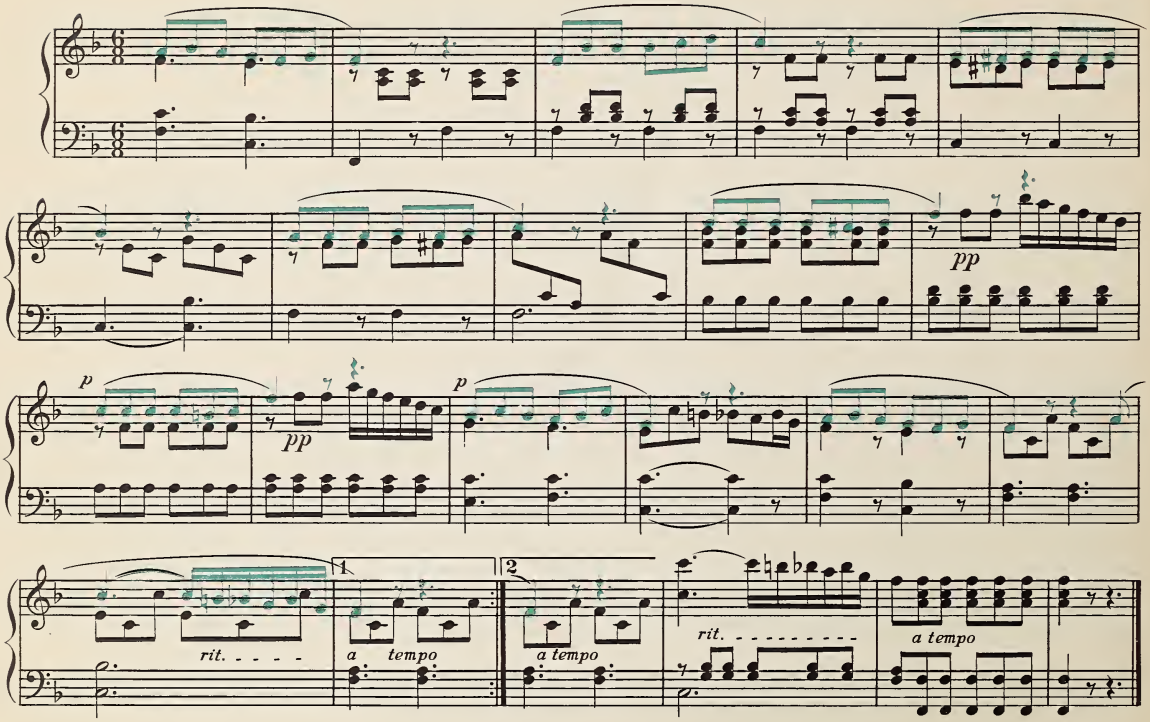
Old Irish

Flute only

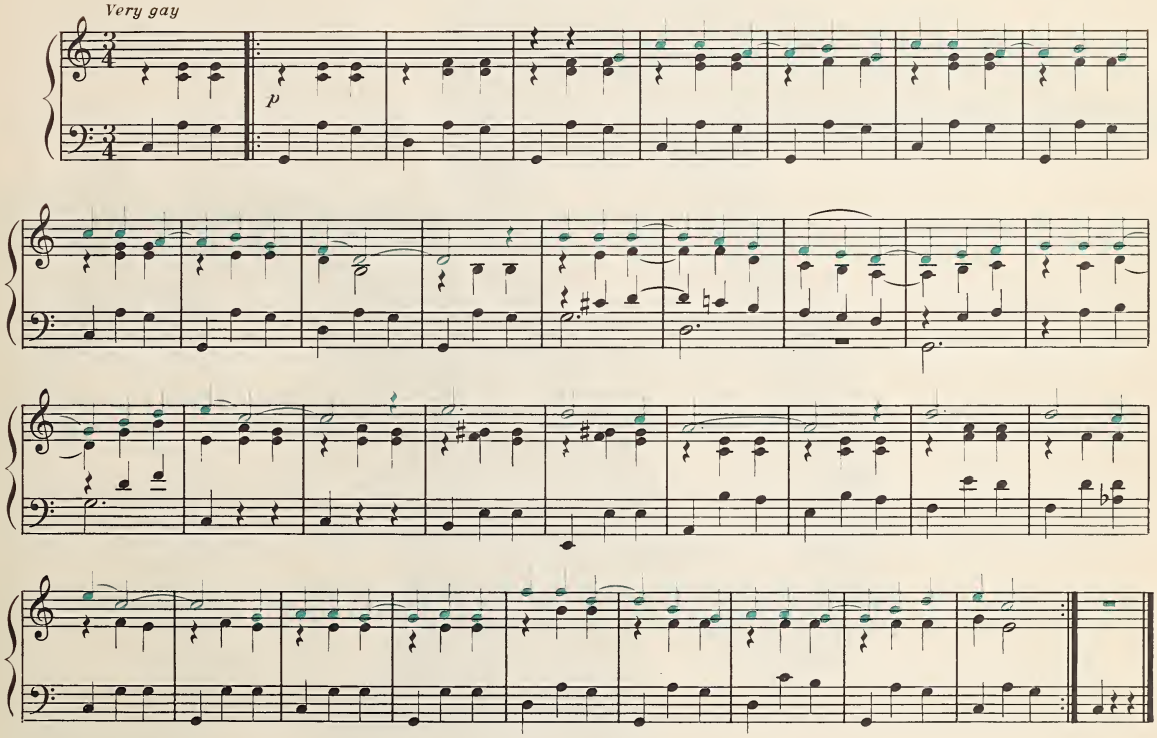


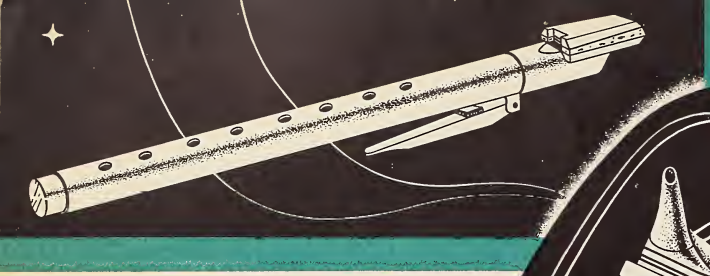
Cradle Song

MOZART



A Mexican Dance





FLUTE

This flute is described in detail in the book.

The clarison and clavalum are occasionally built by older students and groups at the School of Musical Arts and Crafts, Winnetka, Illinois. While they are not nearly so complex in construction as the standard manufactured instrument,[1] they are considerably more difficult to build than such simple instruments as the flute, xylophone, drum, chimes, etc.

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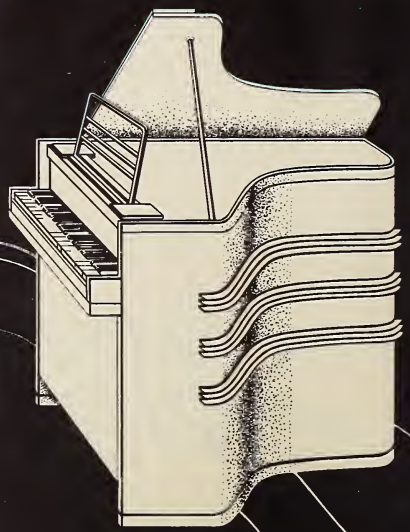
[1] The drawings on this page are reproduced by permission of the manufacturers (Wurlitzer Grand Piano Co., De Kalb, Illinois).

CLARISON

A wind instrument with a tone somewhat like that of the clarinet. It requires no "embouchure" and is sounded by means of small keys like those on a piano.

CLAVALUM

A five octave keyboard instrument with a bell-like tone.